WHAT IS CLAIMED IS:

1.   A method of using an addressable array of biopolymers on a substrate, comprising:

(a)   receiving the addressable array and an associated machine readable identifier carried on an array substrate or array housing;

(b)   exposing the array to a sample;

(c)   reading the array;

(d)   machine reading the identifier as an identifier signal; and

(e)   retrieving biological function data for one or more of the biopolymers from a memory based on the identifier signal.

2.   A method according to claim 1 wherein the biopolymers are polynucleotides.

3.   A method according to claim 2 wherein the biopolymers are DNA.

4.   A method according to claim 1 wherein the retrieval of the biological function data includes:

communicating the identifier signal to a processor which retrieves data on the identity of the biopolymers based on the read identifier; and

communicating the identity data on the biopolymers to a processor which retrieves the biological function data for one or more of the biopolymers from a memory based on the retrieved identity data.

5.   A method according to claim 1 wherein the memory from which biological function data is retrieved is a portable storage medium received from a remote location.

6.   A method according to claim 1 additionally comprising either controlling reading of the array or processing information obtained from reading the array, in accordance with the retrieved biological function data.

7.   A method according to claim 4 wherein the processor which retrieves the biological function data and the memory from which the biological function data is retrieved,

are remote from the location at which the array and identifier are read, and wherein the read identifier or identity data is communicated to the remote processor.

8.   A method according to claim 5 wherein the machine readable identifier is read while the array is in a same apparatus which reads the array.

9.   A method of using an addressable array of biopolymers on a substrate, comprising:

(a)   receiving the addressable array and an associated machine readable identifier carried on an array substrate or array housing;

(b)   exposing the array to a sample;

(c)   reading the array;

(d)   machine reading the identifier as an identifier signal; and

(e)   communicating with a remote station and retrieving therefrom biological function data for one or more of the biopolymers based on the identifier signal.

10.   A method according to claim 9 wherein the biological function data is retrieved by communicating to the remote station the identifier signal or biopolymer identity data obtained using the identifier signal, and receiving the biological function data in response.

11.   A method according to claim 10 additionally comprising:

          obtaining a communication address of the remote station using the identifier signal;

          wherein the communication address is used to establish communication with the remote station.

12.   A method according to claim 10 wherein the biological function data is retrieved by communicating the identifier signal to the remote station.

13.   A method according to claim 10 additionally comprising retrieving the biopolymer identity data from a memory carrying multiple identifiers in association with the

biopolymer identity data, using the identifier signal, and wherein the biopolymer identity data is communicated to the remote station to retrieve the biological function data in response.

14.   A method of using addressable arrays of biopolymers on a substrate, comprising:

(a)   receiving the addressable arrays with respective associated machine readable identifiers carried on an array substrate or array housing;

(b)   exposing each array to a sample;

(c)   reading each array;

(d)   machine reading each array identifier as an identifier signal;

(d)   saving into a memory a first set of feature characteristic data for each array received from a remote location;

(f)   saving into a memory an updated set of feature characteristic data for at least some of the features of at least some of the arrays, received from a remote location;

(g)   retrieving from the saved first and updated sets of feature characteristic data, feature characteristic data for each array using the read identifier signal.

15.   A method according to claim 14 wherein feature characteristic data from the first set for a given feature is replaced with corresponding data from the update set when the first set data conflicts with the updated set data.

16.   A method according to claim 14 additionally comprising communicating feature characteristic data for an array to a remote location in association with an identification of the feature.

17.   A method according to claim 16 wherein the communicated feature characteristic data is an indication of a suspected feature error.

18.   A method according to claim 16 wherein the communicated feature identification includes the array identifier.

19.　　　　A method according to claim 14 wherein the received updated set of feature characteristic data is communicated from a remote location in response to receipt of the read array identifier.

20.　　　　A method according to claim 14 wherein the updated set of feature characteristic data is received on a portable storage medium.

21.　　　　A method of generating addressable arrays of biopolymers on a substrate, comprising:

(a)　　　　providing the biopolymers for each array on different regions of the substrate so as to fabricate the array with features of different composition;

(b)　　　　applying an identifier to the substrate of each array or a housing carrying the substrate, different identifiers being applied for arrays having different sets of features;

(c)　　　　saving in a memory data on the identity of the biopolymers on each array in association with the corresponding identifier;

(d)　　　　shipping the fabricated arrays to multiple different remote locations;

(e)　　　　forwarding to each of multiple remote locations a first set of feature characteristic data associated with at least one array identifier; and

(f)　　　　communicating to a remote location an updated set of feature characteristic data for an array in response to a received communication of the identifier corresponding to that array.

22.　　　　A method according to claim 21, additionally comprising:

receiving feature characteristic data for an array in association with an identification of the feature, communicated from a remote location.

23.　　　　A method according to claim 22 wherein the received feature characteristic data is for a sub-set of features on a first array and is received in association with an array identifier corresponding to the first array.

24.　　　　A method according to claim 23 wherein the updated set of feature characteristic data communicated to a remote location includes the received feature characteristic data for the sub-set of features.

25.   An apparatus for using an addressable array of biopolymers on a substrate, comprising:

(a)   an array reader which reads the array following exposure to a sample;

(b)   a reader which reads an identifier carried on an array substrate or an array housing, as an identifier signal; and

(c)   a processor which retrieves biological function data for one or more of the biopolymers from a memory based on the read identifier signal.

26.   An apparatus according to claim 25 wherein the retrieval of the biological function data by the processor unit includes:

retrieving data on the identity of the biopolymers based on the read identifier; and

retrieving the biological function data for one or more of the biopolymers from a memory based on the retrieved identity data.

27.   An apparatus according to claim 25 additionally comprising a portable storage medium reader, and wherein the memory from which the processor retrieves the biological function data is a portable storage medium in the reader.

28.   An apparatus according to claim 25 wherein the processor either controls reading of the array or processes information obtained from reading the array, in accordance with the retrieved biological function data.

29.   An apparatus according to claim 25 additionally comprises a communication module, and wherein the processor retrieves the biological function data from a remote memory by communicating the read identifier or identity data to a remote location and receiving in response the biological function data as a communication.

30.   An apparatus for using an addressable array of biopolymers on a substrate, comprising:

(a)   an array reader which reads the array following exposure to a sample;

(b)   a reader which reads an identifier carried on an array substrate or an array housing, as an identifier signal;

(c)   a communication module; and

(d)   a processor which:

retrieves feature characteristic data for the array from a memory based on the read identifier signal, and

communicates feature characteristic data for the array to a remote location in association with an identification of the feature.

31.   An apparatus according to claim 30 wherein the feature characteristic data communicated to the remote location comprises an identification of the feature along with an indication of a suspected feature error.

32.   An apparatus according to claim 30 wherein the communicated feature identification includes the array identifier signal.

33.   An apparatus according to claim 30 wherein the processor additionally obtains a communication address for the remote location using the identifier signal and communicates the feature characteristic data to the remote location using the communication address.

34.   A central array fabrication station, comprising:

(a)   an array fabricator to provide biopolymers onto different regions of multiple substrates so as to fabricate arrays;

(b)   a writing system which applies a map identifier to each substrate or a housing carrying the substrate, different identifiers being applied for arrays having different sets of features;

(c)   a processor which

saves in a memory data on the identity of the biopolymers for each array, in association with the identifier for that array;

saves in a memory first sets of feature characteristic data for the arrays each in association with the array identifier; and

saves in a memory an updated set of feature characteristic data for at least some of the features of at least some of the arrays, each in association with a corresponding array identifier, which saving occurs at a time later than the saving of the first sets of feature characteristics.

35.   A central array fabrication station according to claim 34 additionally comprising a communication module, and wherein the processor additionally communicates updated sets of feature characteristics to different remote locations, each being communicated in response to receipt of a communicated identifier for the corresponding array.

36.   A central array fabrication station according to claim 34 wherein the processor additionally receives the updated sets of feature characteristic data as communications from remote locations.